

**Amendments to the Claims:**

This claim listing will replace all prior versions and listings of claims in the application:

**Claim Listing:**

1. (Currently Amended) An immunomer, comprising at least two oligonucleotides linked at  
5 their 3' ends or internucleoside linkages or a functionalized nucleobase or sugar to a non-  
nucleotidic linker, wherein at least one of the oligonucleotides is an ~~immunomodulatory~~  
oligonucleotide having an accessible 5' end and comprising an immunostimulatory  
dinucleotide having the structure RpG, wherein R has the structure shown in Figure 15  
and G is selected from the group consisting of guanosine, 2'-deoxyguanosine, 2' deoxy-  
10 7-deazaguanosine, 2'-deoxy-6-thioguanosine, arabinoguanosine, 2'-deoxy-2'-substituted-  
arabinoguanosine, 2'-O-substituted-arabinoguanosine, and ~~or~~ other non-natural purine  
nucleosides.
2. (Original) An immunomodulatory oligonucleotide comprising an immunostimulatory  
dinucleotide having the structure RpG, wherein R has the structure shown in Figure 15  
15 and G is selected from the group consisting of guanosine, 2'-deoxyguanosine, 2' deoxy-7-  
deazaguanosine, 2'-deoxy-6-thioguanosine, arabinoguanosine, 2'-deoxy-2'substituted-  
arabinoguanosine, 2'-O-substituted-arabinoguanosine, or other non-natural purine.
3. (Currently Amended) The immunomer according to claim 1 having the structure



20 wherein:

the base of Y is 2-oxo-7-deaza-8-methyl-purine;

the base of Z is guanine, 2-amino-6-oxo-7-deazapurine, 2-amino-6-thiopurine, 6-  
oxo-purine or other non-natural purine nucleoside,

N1 and Nn at each occurrence, is independently a naturally occurring or a  
25 synthetic nucleoside or an immunostimulatory moiety selected from the group  
consisting of abasic nucleosides, arabinonucleosides, 2'-deoxyuridine,  
 $\alpha$ -deoxyribonucleosides,  $\beta$ -L-deoxyribonucleosides, and nucleosides linked by a

phosphodiester or modified internucleoside linkage to the adjacent nucleoside on the 3' side, the modified internucleotide linkage being selected from, ~~without limitation,~~ a linker having a length of from about 2 angstroms to about 200 angstroms, C2-C18 alkyl linker, poly(ethylene glycol) linker, 2-aminobutyl-1,3-propanediol linker, glyceryl linker, 2'-5' internucleoside linkage, and phosphorothioate, phosphorodithioate, or methylphosphonate internucleoside linkage, wherein the recited oligonucleotide is directly or indirectly linked to another oligonucleotide,

and wherein n is a number from 0-30.

- 10 4. (Currently Amended) The immunomodulatory oligonucleotide according to claim 2 having the structure



wherein:

the base of Y is 2-oxo-7-deaza-8-methyl-purine;

- 15 the base of Z is guanine, 2-amino-6-oxo-7-deazapurine, 2-amino-6-thiopurine, 6-oxo-purine or other non-natural purine nucleoside,

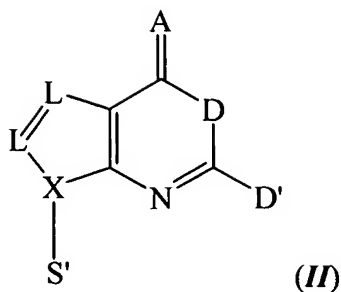
- 20 N1 and Nn at each occurrence, is independently a naturally occurring or a synthetic nucleoside or an immunostimulatory moiety selected from the group consisting of abasic nucleosides, arabinonucleosides, 2'-deoxyuridine,  $\alpha$ -deoxyribonucleosides,  $\beta$ -L-deoxyribonucleosides, and nucleosides linked by a phosphodiester or modified internucleoside linkage to the adjacent nucleoside on the 3' side, the modified internucleotide linkage being selected from, without limitation, a linker having a length of from about 2 angstroms to about 200 angstroms, C2-C18 alkyl linker, poly(ethylene glycol) linker, 2-aminobutyl-1,3-propanediol linker, glyceryl linker, 2'-5' internucleoside linkage, and  
25 phosphorothioate, phosphorodithioate, or methylphosphonate internucleoside linkage,

and wherein n is a number from 0-30.

5. (Original) The immunomer according to claim 3 wherein the immunostimulatory moiety is selected from the group consisting of abasic nucleosides, arabinonucleosides, 2'-deoxyuridine,  $\alpha$ -deoxyribonucleosides,  $\beta$ -L-deoxyribonucleosides, and nucleosides linked by a modified internucleoside linkage to the adjacent nucleoside on the 3' side, the modified internucleotide linkage being selected from the group consisting of C2-C18 alkyl linker, poly(ethylene glycol) linkage, 2-aminobutyl-1,3-propanediol linker, 2'-5' internucleoside linkage, methylphosphonate internucleoside linkage; methylphosphonothioates, phosphotriesters, phosphothiotriesters, phosphorothioates, phosphorodithioates, triester prodrugs, sulfones, sulfonamides, sulfamates, formacetal, N-methylhydroxylamine, carbonate, carbamate, morpholino, boranophosphonate, phosphoramidates, especially primary amino-phosphoramidates, N3 phosphoramidates and N5 phosphoramidates, and stereospecific linkages, nucleosides having sugar modifications, 2'-substituted pentose sugars including, without limitation, 2'-O-methylribose, 2'-O-methoxyethylribose, 2'-O-propargylribose, and 2'-deoxy-2'-fluororibose; 3'-substituted pentose sugars, including, without limitation, 3'-O-methylribose; 1',2'-dideoxyribose; arabinose; substituted arabinose sugars, hexose sugars, and alpha-anomers, peptide nucleic acids (PNA), peptide nucleic acids with phosphate groups (PHONA), locked nucleic acids (LNA), morpholinonucleic acids, and oligonucleotides having backbone linker sections having a length of from about 2 angstroms to about 200 angstroms, alkyl linkers or amino linkers, DNA isoforms,  $\beta$ -L-deoxyribonucleosides,  $\alpha$ -deoxyribonucleosides, nucleosides having unnatural internucleoside linkage positions, and nucleosides having modified heterocyclic bases.
6. (Original) The immunomodulatory oligonucleotide according to claim 4, wherein the immunostimulatory moiety is selected from the group consisting of abasic nucleosides, arabinonucleosides, 2'-deoxyuridine,  $\alpha$ -deoxyribonucleosides,  $\beta$ -L-deoxyribonucleosides, and nucleosides linked by a modified internucleoside linkage to the adjacent nucleoside on the 3' side, the modified internucleotide linkage being selected from the group consisting of C2-C18 alkyl linker, poly(ethylene glycol) linkage, 2-aminobutyl-1,3-propanediol linker, 2'-5' internucleoside linkage, methylphosphonate

internucleoside linkage; methylphosphonothioates, phosphotriesters, phosphothiotriesters, phosphorothioates, phosphorodithioates, triester prodrugs, sulfones, sulfonamides, sulfamates, formacetal, N-methylhydroxylamine, carbonate, carbamate, morpholino, boranophosphonate, phosphoramidates, especially primary amino-phosphoramidates, N3 phosphoramidates and N5 phosphoramidates, and stereospecific linkages, nucleosides having sugar modifications, 2'-substituted pentose sugars including, without limitation, 2'-O-methylribose, 2'-O-methoxyethylribose, 2'-O-propargylribose, and 2'-deoxy-2'-fluororibose; 3'-substituted pentose sugars, including, without limitation, 3'-O-methylribose; 1',2'-dideoxyribose; arabinose; substituted arabinose sugars, hexose sugars, and alpha-anomers, peptide nucleic acids (PNA), peptide nucleic acids with phosphate groups (PHONA), locked nucleic acids (LNA), morpholinonucleic acids, and oligonucleotides having backbone linker sections having a length of from about 2 angstroms to about 200 angstroms, alkyl linkers or amino linkers, DNA isoforms,  $\beta$ -L-deoxyribonucleosides,  $\alpha$ -deoxyribonucleosides, nucleosides having unnatural internucleoside linkage positions, and nucleosides having modified heterocyclic bases.

7. (Original) The immunomer of claim 1 wherein the immunomer comprises at least one oligonucleotide that is complementary to a gene.
8. (Original) The immunomer of claim 1 wherein the immunomer comprises at least one ribozyme or a decoy oligonucleotide.
9. (Original) The immunomer of claim 1 wherein the immunomer comprises at least one Nn portion that includes a G3-G10 region.
10. (Original) The immunomer according to claim 1 wherein one purine nucleoside in the immunostimulatory dinucleotide has the structure (*III*):



wherein:

D is a hydrogen bond donor;

D' is selected from the group consisting of hydrogen, hydrogen bond donor, and hydrophilic group;

A is a hydrogen bond acceptor or a hydrophilic group;

X is carbon or nitrogen;

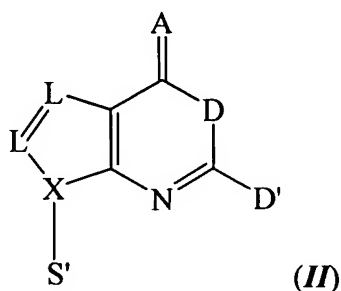
each L is independently an atom selected from the group consisting of C, O, N and S; and

S' is a pentose or hexose sugar ring, or a non-naturally occurring sugar.

11. (Original) The immunomer according to claim 10 wherein the sugar ring is derivatized with a phosphate moiety, modified phosphate moiety, or other linker moiety suitable for linking the purine nucleoside to another nucleoside or nucleoside analog.
12. (Original) The immunomer according to claim 10 wherein the hydrogen bond donors are selected from the group consisting of -NH-, -NH<sub>2</sub>, -SH and -OH.
13. (Original) The immunomer according to claim 10 wherein the hydrogen bond acceptors are selected from the group consisting of C=O, C=S, -N= and the ring nitrogen atoms of an aromatic heterocycle.
14. (Original) The immunomer according to claim 10 wherein the non-naturally occurring purine is 2-amino-6-thiopurine, 6-oxopurine or 2-amino-6-oxo-7-deazapurine.

15. (Original) The immunomer according to claim 1, wherein the non-nucleotidic linker is selected from the group consisting of a linker from about 2 angstroms to about 200 angstroms in length, a metal, a soluble or insoluble biodegradable polymer bead, an organic moiety having functional groups that permit attachment to the 3'-terminal nucleoside of the oligonucleotide, a biomolecule, a cyclic or acyclic small molecule, an aliphatic or aromatic hydrocarbon, either of which optionally can include, either in the linear chain connecting the oligonucleotides or appended to it, one or more functional groups selected from the group consisting of hydroxy, amino, thiol, thioether, ether, amide, thioamide, ester, urea, and thiourea; amino acids, carbohydrates, cyclodextrins, adamantane, cholesterol, haptens antibiotics, glycerol or a glycerol homolog of the formula  $\text{HO}-(\text{CH}_2)_o-\text{CH}(\text{OH})-(\text{CH}_2)_p-\text{OH}$ , wherein  $o$  and  $p$  independently are integers from 1 to about 6, and a derivative of 1,3-diamino-2-hydroxypropane.
16. (Original) The immunomer according to claim 1, wherein the internucleoside linkages consist essentially of phosphodiester linkages.
17. (Original) An immunomer conjugate, comprising an immunomer, according to claim 1 and an antigen conjugated to the immunomer at a position other than the accessible 5' end.
18. (Original) The immunomer according to claim 1, wherein G is arabinoguanosine or 2'-deoxy-2'-substituted arabinguanosine, 2'-deoxy-7-deazaguanosine or 2'-deoxy-6-thioguanosine, or 2'-deoxyinosine.
19. (Original) The immunomodulatory oligonucleotide of claim 2 wherein the oligonucleotide is complementary to a gene.
20. (Original) The immunomodulatory oligonucleotide of claim 2 wherein the oligonucleotide comprises a ribozyme or a decoy oligonucleotide.
21. (Original) The immunomodulatory oligonucleotide of claim 2 comprising at least one Nn portion that includes a G3-G10 region.

22. (Original) The immunomodulatory oligonucleotide according to claim 2 wherein one purine nucleoside in the immunostimulatory dinucleotide has the structure (II):



wherein:

- 5                   D is a hydrogen bond donor;
- D' is selected from the group consisting of hydrogen, hydrogen bond donor, and hydrophilic group;
- A is a hydrogen bond acceptor or a hydrophilic group;
- X is carbon or nitrogen;
- 10               each L is independently an atom selected from the group consisting of C, O, N and S; and
- S' is a pentose or hexose sugar ring, or a non-naturally occurring sugar.
23. (Original) The immunomodulatory oligonucleotide according to claim 22 wherein the sugar ring is derivatized with a phosphate moiety, modified phosphate moiety, or other linker moiety suitable for linking the purine nucleoside to another nucleoside or
- 15               nucleoside analog.
24. (Original) The immunomodulatory oligonucleotide according to claim 22 wherein the hydrogen bond donors are selected from the group consisting of -NH-, -NH<sub>2</sub>, -SH and -OH.

25. (Original) The immunomodulatory oligonucleotide according to claim 22 wherein the hydrogen bond acceptors are selected from the group consisting of C=O, C=S, -N= and the ring nitrogen atoms of an aromatic heterocycle.
- 5 26. (Original) The immunomodulatory oligonucleotide according to claim 22 wherein the non-naturally occurring purine is 2-amino-6-thiopurine or 2-amino-6-oxo-7-deazapurine.
- 10 27. (Original) The immunomodulatory oligonucleotide according to claim 2, wherein the non-nucleotidic linker is selected from the group consisting of a linker from about 2 angstroms to about 200 angstroms in length, a metal, a soluble or insoluble biodegradable polymer bead, an organic moiety having functional groups that permit attachment to the 3'-terminal nucleoside of the oligonucleotide, a biomolecule, a cyclic or acyclic small molecule, an aliphatic or aromatic hydrocarbon, either of which optionally can include, either in the linear chain connecting the oligonucleotides or appended to it, one or more functional groups selected from the group consisting of hydroxy, amino, thiol, thioether, ether, amide, thioamide, ester, urea, and thiourea; amino
- 15 acids, carbohydrates, cyclodextrins, adamantane, cholesterol, haptens antibiotics, glycerol or a glycerol homolog of the formula  $\text{HO}-(\text{CH}_2)_o\text{-CH(OH)-}(\text{CH}_2)_p\text{-OH}$ , wherein  $o$  and  $p$  independently are integers from 1 to about 6, and a derivative of 1,3-diamino-2-hydroxypropane.
- 20 28. (Original) The immunomodulatory oligonucleotide according to claim 2, wherein the internucleoside linkages consist essentially of phosphodiester linkages.
29. (Original) An immunomodulatory oligonucleotide conjugate, comprising an immunomodulatory oligonucleotide according to claim 2 and an antigen conjugated to the immunomer at a position other than the accessible 5' end.
- 25 30. (Original) The immunomodulatory oligonucleotide according to claim 2, wherein G is arabinoguanosine or 2'-deoxy-2'-substituted arabinoguanosine, 2'-deoxy-7-deazaguanosine or 2'-deoxy-6-thioguanosine, or 2'-deoxyinosine.
31. (Original) A pharmaceutical formulation comprising an immunomer according to claim 1 and a physiologically acceptable carrier.



32. (Original) A method for generating an immune response in a vertebrate, the method comprising administering to the vertebrate an immunomer according to claim 1.
33. (Original) A method for generating an immune response in a vertebrate, the method comprising administering to the vertebrate an immunomer conjugate according to claim 17.
34. (Original) A method for therapeutically treating a patient having a disease or disorder, such method comprising administering to the patient an immunomer according to claim 1.
35. (Original) The method according to claim 34 wherein the disease or disorder to be treated is cancer, an autoimmune disorder, airway inflammation, inflammatory disorders, skin disorders, allergy, asthma or a disease caused by a pathogen.
36. (Original) A method for therapeutically treating a patient having a disease or disorder, such method comprising administering to the patient an immunomer conjugate according to claim 17.
37. (Original) A method for therapeutically treating a patient having a disease or disorder, such method comprising administering to the patient an immunomer according to claim 10.
38. (Original) The method according to claim 36 wherein the disease or disorder to be treated is cancer, an autoimmune disorder, airway inflammation, allergy, asthma or a disease caused by a pathogen.
39. (Original) The method according to claim 37 wherein the disease or disorder to be treated is cancer, an autoimmune disorder, airway inflammation, allergy, asthma or a disease caused by a pathogen.
40. (Original) The method of claim 32 further comprising administering a vaccine.
41. (Original) The method of claim 40, wherein the immunomer or the vaccine, or both, are linked to an immunogenic protein.

42. (Original) The method of claim 40 further comprising administering an adjuvant.
43. (Original) A method for generating an immune response in a vertebrate, the method comprising administering to the vertebrate an immunomodulatory oligonucleotide according to claim 2.
- 5 44. (Original) A method for generating an immune response in a vertebrate, the method comprising administering to the vertebrate an immunomodulatory oligonucleotide conjugate according to claim 29.
45. (Original) A method for therapeutically treating a patient having a disease or disorder, such method comprising administering to the patient an an immunomodulatory  
10 oligonucleotide according to claim 4.
46. (Original) The method according to claim 45 wherein the disease or disorder to be treated is cancer, an autoimmune disorder, airway inflammation, inflammatory disorders, skin disorders, allergy, asthma or a disease caused by a pathogen.
47. (Original) A method for therapeutically treating a patient having a disease or disorder, such method comprising administering to the patient an immunomodulatory  
15 oligonucleotide conjugate according to claim 29.
48. (Original) A method for therapeutically treating a patient having a disease or disorder, such method comprising administering to the patient an immunomodulatory oligonucleotide according to claim 22.
- 20 49. (Original) The method according to claim 47 wherein the disease or disorder to be treated is cancer, an autoimmune disorder, airway inflammation, allergy, asthma or a disease caused by a pathogen.
50. (Original) The method according to claim 48 wherein the disease or disorder to be treated is cancer, an autoimmune disorder, airway inflammation, allergy, asthma or a  
25 disease caused by a pathogen.
51. (Original) The method of claim 44 further comprising administering a vaccine.

52. (Original) The method of claim 51, wherein the immunomer or the vaccine, or both, are linked to an immunogenic protein.
53. (Original) The method of claim 44 further comprising administering an adjuvant.
54. (Original) The method according to claim 48, further comprising administering another therapeutic agent.
55. (Original) The method according to claim 54, wherein the other therapeutic agent is selected from the group consisting of vaccines, antibodies, allergens, antibiotics and chemotherapeutic agents.
56. (Original) An immunostimulatory oligonucleotide comprising two or more oligonucleotide segments covalently linked 5' to 3' by a non-nucleotidic linker.
57. (New) An immunomer, comprising at least two oligonucleotides linked at their 3' ends, wherein at least one of the oligonucleotides is an immunostimulatory oligonucleotide comprising and immunostimulatory dinucleotide and, optionally, an immunostimulatory moiety.
58. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 2.
59. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 3.
60. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 26.
61. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 27.
62. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 28.
63. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 29.
64. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 30.
65. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 31.
66. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 43.
67. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 46.

68. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 48.
69. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 50.
70. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 52.
71. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 54.
- 5 72. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 56.
73. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 58.
74. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 59.
75. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 60.
76. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 86.
- 10 77. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 87
78. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 88.
79. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 160
80. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 161.
81. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 162.
- 15 82. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 163.
83. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 164.
84. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 165.
85. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 166.
86. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 168.
- 20 87. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 169.
88. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 170.
89. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 171.
90. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 172.
91. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 173.

92. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 174.
93. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 175.
94. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 176.
95. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 177.
- 5 96. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 178.
97. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 179.
98. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 180.
99. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 181.
100. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 182.
- 10 101. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 183.
102. (New) The immunomer according to Claim 57 having the sequence of SEQ ID NO 184.
103. (New) An immunomodulatory oligonucleotide comprising an immunostimulatory dinucleotide and, optionally, an immunostimulatory moiety.
104. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO
- 15 105.
105. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO
- 106.
106. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO
- 109.
- 20 107. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO
- 110.
108. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO
- 111.
109. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO
- 25 112.

110. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 113.
111. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 114.
- 5 112. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 116.
113. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 125.
- 10 114. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 127.
115. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 129.
116. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 131.
- 15 117. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 134.
118. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 137.
- 20 119. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 138.
120. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 139.
121. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 140.
- 25 122. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 144.

123. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 145.
124. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 148.
- 5 125. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 149
126. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 152.
- 10 127. (New) The oligonucleotide according to Claim 103 having the sequence of SEQ ID NO 154.
128. (New) A method for therapeutically treating a patient having a disease or disorder, such method comprising administering to the patient an immunomer according to Claim 57.
129. (New) The method according to Claim 128 wherein the disease or disorder to be treated is cancer, an autoimmune disorder, airway inflammation, inflammatory disorders, skin disorders, allergy, asthma or a disease caused by a pathogen.
- 15 130. (New) The method according to Claim 128 wherein the immunomer is selected from the immunomers listed in Tables 4A-4B.
131. (New) The method according to Claim 128 wherein the immunomer is selected from the immunomers listed in Table 5A.
- 20 132. (New) The method according to Claim 128 wherein the immunomer is selected from the immunomers listed in Table 7.
133. (New) The method according to Claim 128 wherein the immunomer is selected from the immunomers listed in Table 8.
134. (New) The method according to Claim 128 wherein the immunomer is selected from the immunomers listed in Table 9.
- 25 135. (New) The method according to Claim 128 wherein the immunomer is selected from the immunomers listed in Table 14.

136. (New) The method according to Claim 128 wherein the immunomer is selected from the immunomers listed in Table 22.
137. (New) A method for therapeutically treating a patient having a disease or disorder, such method comprising administering to the patient an immunomodulatory oligonucleotide  
5 according to Claim 103.
138. (New) The method according to Claim 137 wherein the disease or disorder to be treated is cancer, an autoimmune disorder, airway inflammation, inflammatory disorders, skin disorders, allergy, asthma or a disease caused by a pathogen.
139. (New) The method according to Claim 137 wherein the oligonucleotide is selected from  
10 the oligonucleotides listed in Table 17.
140. (New) A method for the prophylactic treatment of a patient to prevent the onset of a disease or disorder, such method comprising administering to the patient an immunomer according to claim 1.
141. (New) The method according to claim 140 wherein the disease or disorder is cancer, an  
15 autoimmune disorder, airway inflammation, inflammatory disorders, skin disorders, allergy, asthma or a disease caused by a pathogen.
142. (New) The method of claim 140 further comprising administering a vaccine.
143. (New) The method of claim 142, wherein the immunomer or the vaccine, or both, are linked to an immunogenic protein.
- 20 144. (New) The method of claim 142 further comprising administering an adjuvant.
145. (New) The method according to claim 140, further comprising administering another therapeutic agent.
- 25 146. (New) The method according to claim 145, wherein the other therapeutic agent is selected from the group consisting of antibodies, allergens, antibiotics and chemotherapeutic agents.